ZTX849STOB Datasheet

https://www.DiGi-Electronics.com

DiGi Electronics Part Number	ZTX849STOB-DG
Manufacturer	Diodes Incorporated
Manufacturer Product Number	ZTX849STOB
Description	TRANS NPN 30V 5A E-LINE
Detailed Description	Bipolar (BJT) Transistor NPN 30 V 5 A 100MHz 1.2 W Through Hole E-Line (TO-92 compatible)

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
ZTX849STOB	Diodes Incorporated
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
NPN	5 A
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
30 V	220mV @ 200mA, 5A
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
50nA (ICBO)	100 @ 1A, 1V
Power - Max:	Frequency - Transition:
1.2 W	100MHz
Operating Temperature:	Mounting Type:
-55°C ~ 200°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
E-Line-3, Formed Leads	E-Line (TO-92 compatible)
Base Product Number:	
ZTX849	

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8541.29.0075	

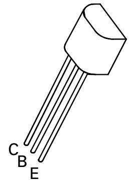
NPN SILICON PLANAR MEDIUM POWER HIGH CURRENT TRANSISTOR

ZTX849

ISSUE 2 – MARCH 94

FEATURES
- 5 Amps continuous current
- Up to 20 Amps peak current
- Very low saturation voltages

APPLICATIONS
- LCD backlight converter
- Flash gun converters
- Battery powered circuits
- Motor drivers



E-Line
TO92 Compatible

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	6	V
Peak Pulse Current	I_{CM}	20	A
Continuous Collector Current	I_C	5	A
Practical Power Dissipation*	P_{totp}	1.58	W
Power Dissipation at T_{amb}=25°C	P_{tot}	1.2	W
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +200	°C

*The power which can be dissipated assuming the device is mounted in a typical manner on a P.C.B. with copper equal to 1 inch square minimum

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	80	120		V	I_C=100µA
Collector-Emitter Breakdown Voltag	$V_{(BR)CER}$	80	120		V	IC=1µA, RB ≤1KΩ
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	30	40		V	I_C=10mA*
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	6	8		V	I_E=100µA
Collector Cut-Off Current	I_{CBO}			50 1	nA µA	V_{CB}=70V V_{CB}=70V, T_{amb}=100°C
Collector Cut-Off Current	I_{CER} R ≤1KΩ			50 1	nA µA	V_{CB}=70V V_{CB}=70V, T_{amb}=100°C
Emitter Cut-Off Current	I_{EBO}			10	nA	V_{EB}=6V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		25 50 110 180	50 100 200 220	mV mV mV mV	I_C=0.5A, I_B=20mA* I_C=1A, I_B=20mA* I_C=2A, I_B=20mA* I_C=5A, I_B=200mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		930	1050	mV	I_C=5A, I_B=200mA*

ZTX849

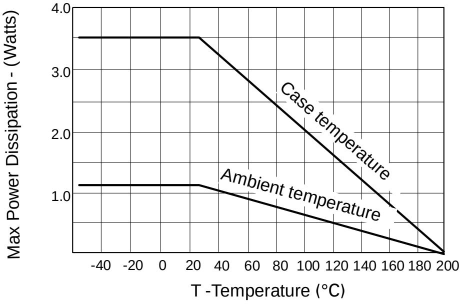
ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		850	950	mV	IC=5A, V_{CE}=1V*
Static Forward Current Transfer Ratio	h_{FE}	100	200			I_C=10mA, V_{CE}=1V
		100	200	300		I_C=1A, V_{CE}=1V*
		100	170			I_C=5A, V_{CE}=1V*
		30	65			I_C=20A, V_{CE}=1V*
Transition Frequency	f_T		100		MHz	I_C=100mA, V_{CE}=10V f=50MHz
Output Capacitance	C_{obo}		75		pF	V_{CB}=10V, f=1MHz*
Switching Times	t_{on} t_{off}		45 630		ns ns	I_C=1A, $I_{B!}$=100mA I_{B2}=100mA, V_{CC}=10V

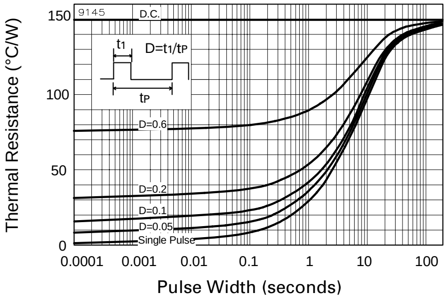
*Measured under pulsed conditions. Pulse width=300µs. Duty cycle ≤2%

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	MAX.	UNIT
Thermal Resistance: Junction to Ambient	$R_{th(j-amb)}$	150	°C/W
Junction to Case	$R_{th(j-case)}$	50	°C/W

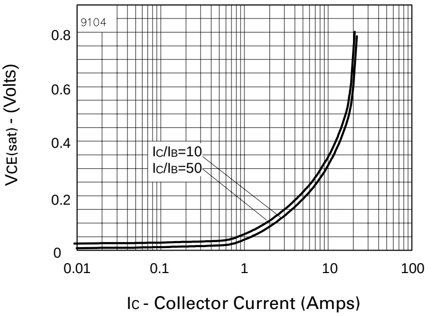


Derating curve

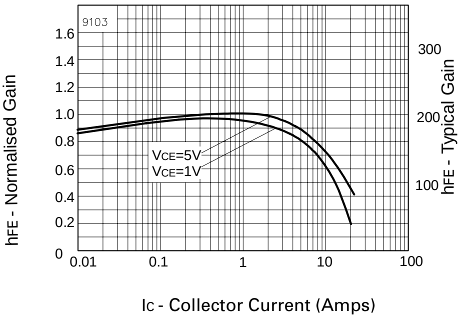


Maximum transient thermal impedance

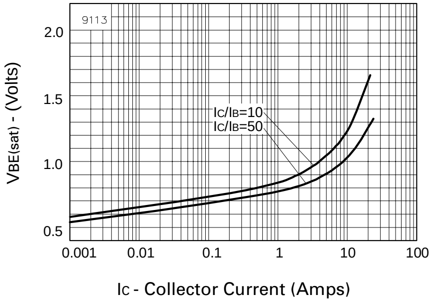
TYPICAL CHARACTERISTICS



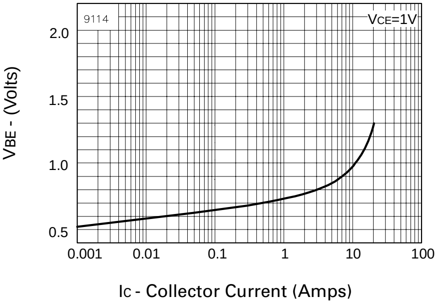
VCE(sat) v IC



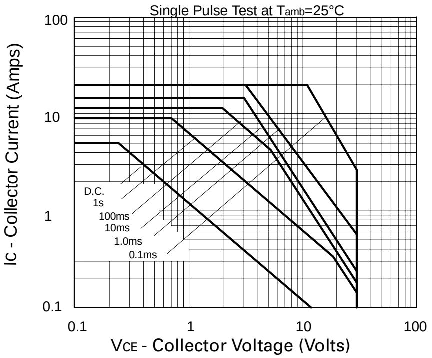
hFE v IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area

OUR CERTIFICATE

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OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM CERTIFICATE

DIGI ELECTRONICS HK LIMITED

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DCI Certification Ltd


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CERTIFICATE OF INCORPORATION

I hereby certify that

is this day incorporated in Hong Kong under the Companies Ordinance

a limited company.

Registrar of Companies
Hong Kong Special Administrative Region


ASA

MEMBERSHIP
Certificate

DIGI ELECTRONICS HK LIMITED


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